

REPLACEMENT SHEET

- 13 -

What is claimed is:

1. (Deleted)

2. (Deleted)

5 3. A method for fabricating a nonradiative dielectric waveguide, comprising the steps of:
forming a first conductive film on a substrate;

forming on said first conductive film a second dielectric film whose dielectric constant is
10 larger than that of a first dielectric film;

etching said second dielectric film to form a transmission line;

embedding said first dielectric film in an area where said second dielectric film has been etched
15 away; and

forming a second conductive film on said first dielectric film and said second dielectric film.

20 4. A method for fabricating a nonradiative dielectric waveguide as claimed in claim 3, wherein a MEMS circuit is fabricated into said substrate.

25 5. A method for fabricating a nonradiative dielectric waveguide, comprising the steps of:
forming a conductive film on a substrate;
forming a first sacrificial film on said conductive film;

forming a groove for a transmission line passing through said first sacrificial film;

embedding a dielectric into said groove formed passing through said first sacrificial film;

30 forming a second sacrificial layer on said first sacrificial layer into which said dielectric has been embedded, and etching away said second sacrificial layer everywhere except a plurality of portions thereof;

35 forming a conductive film in an area where said second sacrificial layer has been etched away; and

etching away said first and second sacrificial layers.

REPLACEMENT SHEET

- 14 -

6. A method for fabricating a nonradiative dielectric waveguide as claimed in claim 5, wherein a MEMS circuit is fabricated into said substrate.

5 7. A method for fabricating a nonradiative dielectric waveguide, comprising the steps of:
forming a first dielectric film on a substrate;

forming a groove for a transmission line to such a depth that does not pass through said first dielectric film;

10 embedding a second dielectric, whose dielectric constant is larger than that of said first dielectric film, into said groove formed in said first dielectric film;

15 forming another first dielectric film on said first dielectric film and said second dielectric film;

forming two grooves one spaced apart from the other by a distance smaller than the width of said second dielectric, said grooves being formed down to said substrate in such a manner as to cut off both edges of said second dielectric; and

20 embedding a conductor into each of said two grooves.

25 8. A method for fabricating a nonradiative dielectric waveguide as claimed in claim 7, wherein a MEMS circuit is fabricated into said substrate.

9. (Deleted)

10. (Deleted)

30 11. (Deleted)

12. (Deleted)